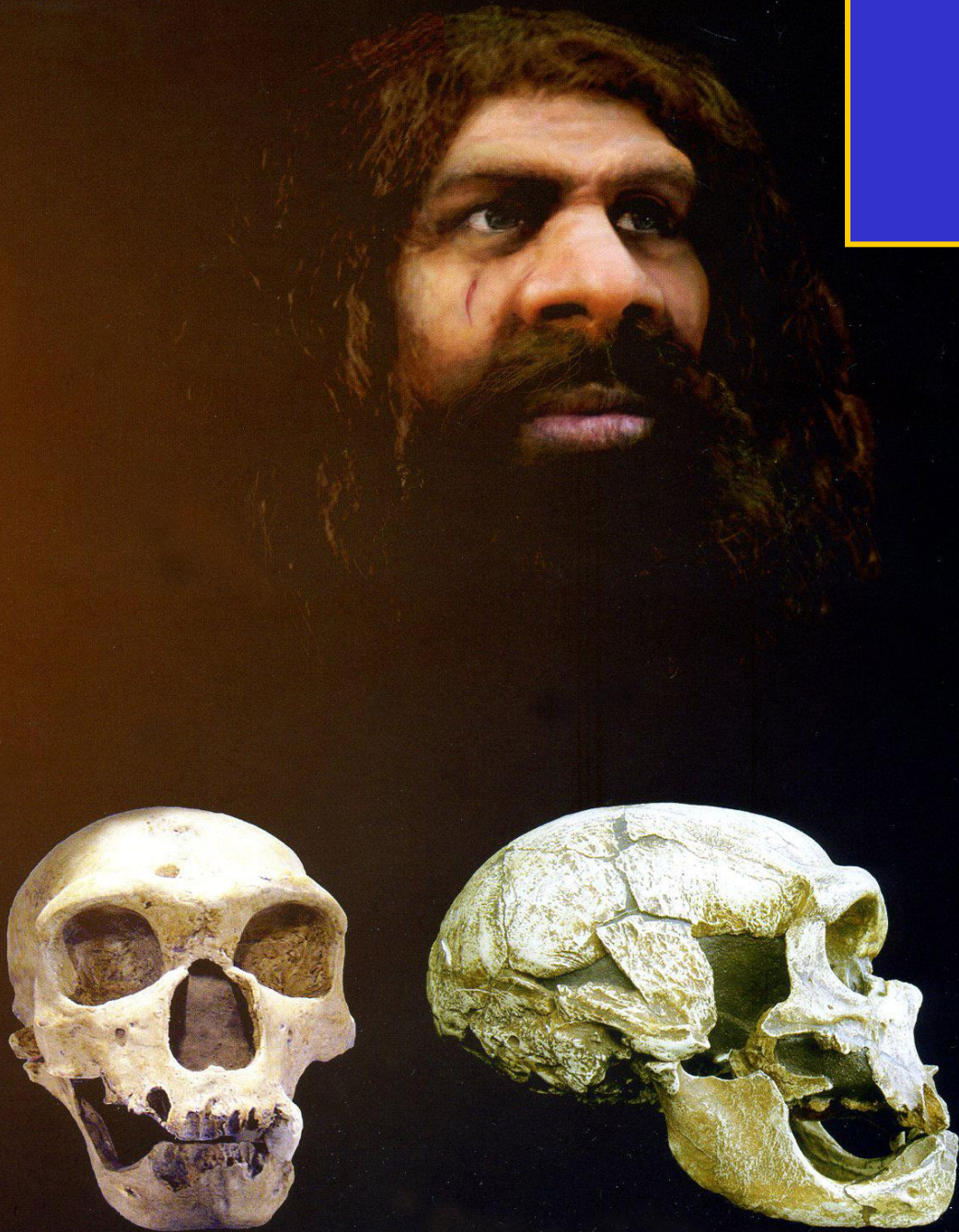


# Neanderthals and Middle Palaeolithic Archaeology





## IMPORTANT FOSSIL DISCOVERIES

PHASES OF THE PALEOLITHIC	HUMAN GENERA & SPECIES	GEOGRAPHIC REGION & SITES			YEARS BEFORE PRESENT
		EUROPE	ASIA	AFRICA	
UPPER PALEOLITHIC					10,000
Aurignacian		Paviland			20,000
Châtelperronian		Cro-Magnon			30,000
		St. Césaire			40,000
MIDDLE PALEOLITHIC	<i>Homo sapiens</i>	Le Moustier	Krapina		50,000
MOUSTERIAN		La Chapelle	Shanidar	Kebara	60,000
		Guattari, Spy	Tabun		70,000
			Skhul, Qafzeh		80,000
				Omo	90,000
					100,000
		Fontéchevade			200,000
		Swanscombe		Kabwe	300,000
			Zhoukoudian		400,000
	<i>Homo erectus</i>				500,000
					600,000
					700,000
LOWER PALEOLITHIC					800,000
ACHEULIAN					900,000
					1,000,000
	<i>Homo habilis</i>		Trinil		
Oldowan				Olduvai Bed I	
	<i>Australopithecus</i>			Taung	
					2,000,000
					3,000,000
					4,000,000
					5,000,000

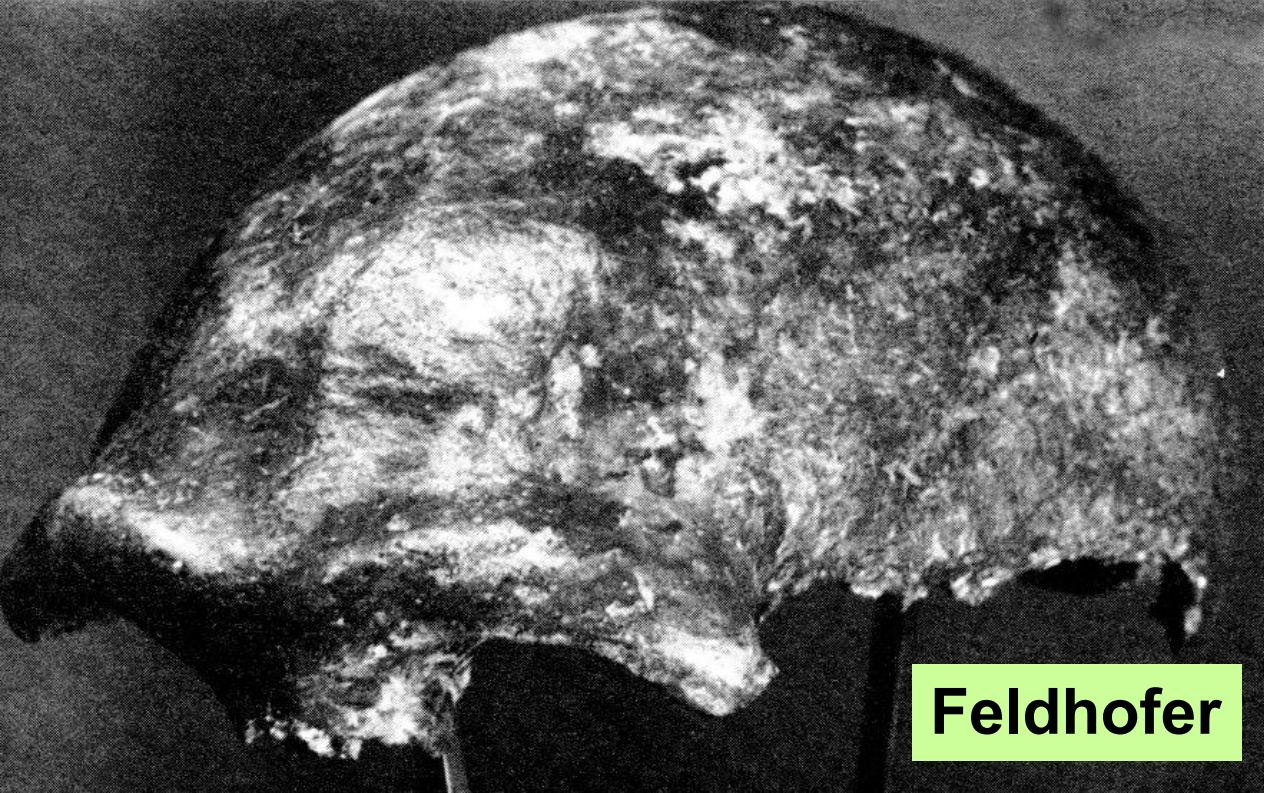




The distribution of classical Neanderthals covers a wide, region that from Portugal and northern Morocco, in the west, moves to Siberia, in the far East, as the recent discoveries, mainly from Denisova Cave would suggest. Until a few years ago, the distribution of these individuals toward the east seemed to be limited to central Asia (Uzbekhistan), while their spread to the south is still badly defined.







**Feldhofer**

**The first Neanderthal remains were discovered by chance in 1856 in a small cave that opens in a narrow valley near Duesseldorf in Germany.**

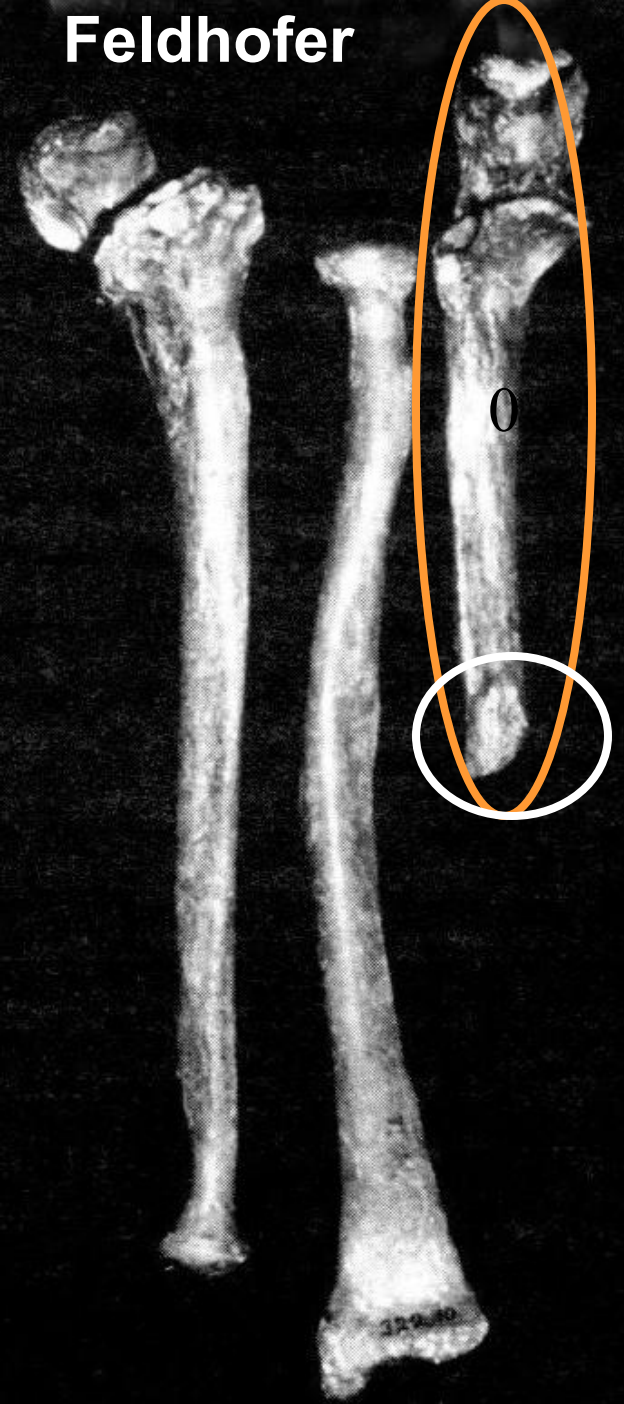
**The limestone quarrying underway in the region led to the discovery of Feldhofer cave from which the first human bones were resumed**

**After a few weeks the finds were shown to a naturalist, Dr. Fuhlrott who recognised their “*extraordinary shape... the existence of which was so far totally unknown*”.**

**Unfortunately the bones had not been collected in a systematic way and without taking any field note on the spot**



## **Feldhofer**



**Among the most important and unique characteristics of the human bones recovered from the cave of Feldhofer, which Dr. Fulhrott immediately attributed to one only individual, are those of the skull, unusually elongated, with a pronounced supraorbital torus.**

**Regarding the long bones, the left ulna was slightly bent. It showed an old fracture, due to an accident occurred when the individual was alive, which had led to a shortening of the bone, no longer utilised since then.**

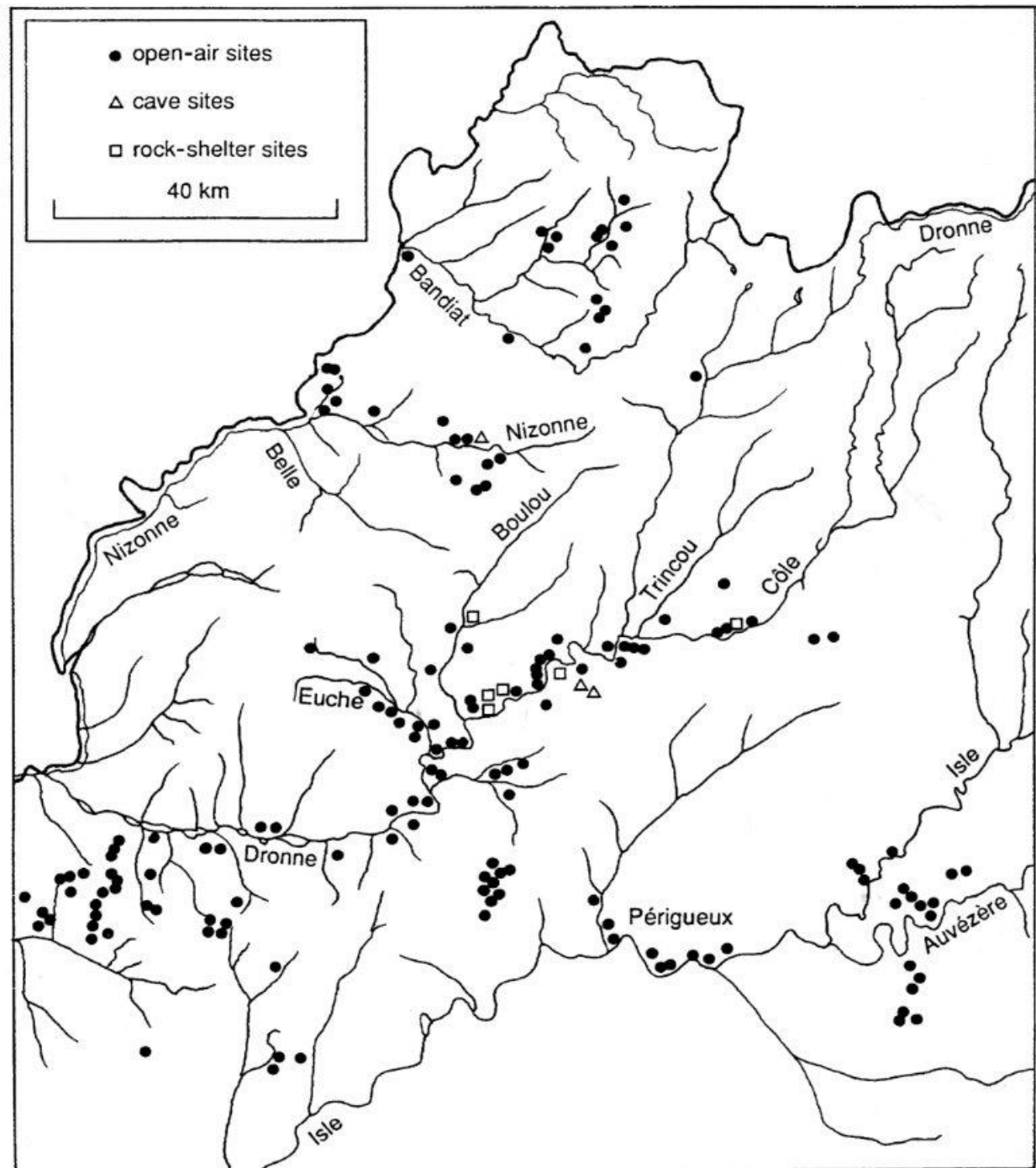
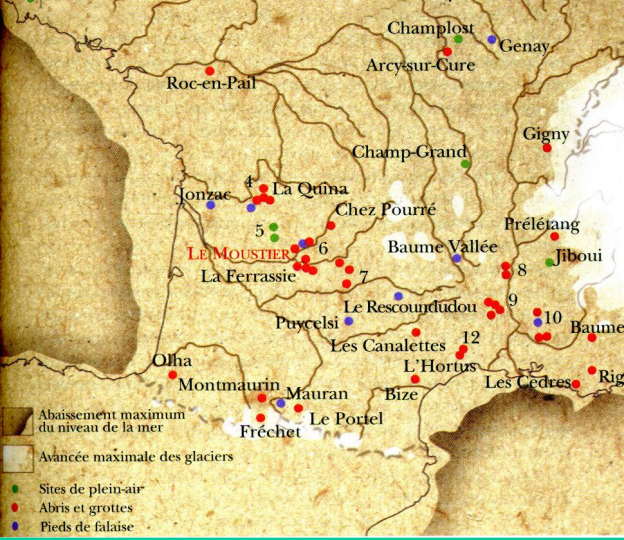
**The above data led some scholars to reject the antiquity of the finds and, in contrast, to attribute them to a pathologically sick individual**





**The human remains of Neanderthal individuals, both bones and/or isolated teeth, are many in western Europe, where a few burials are also known to date**





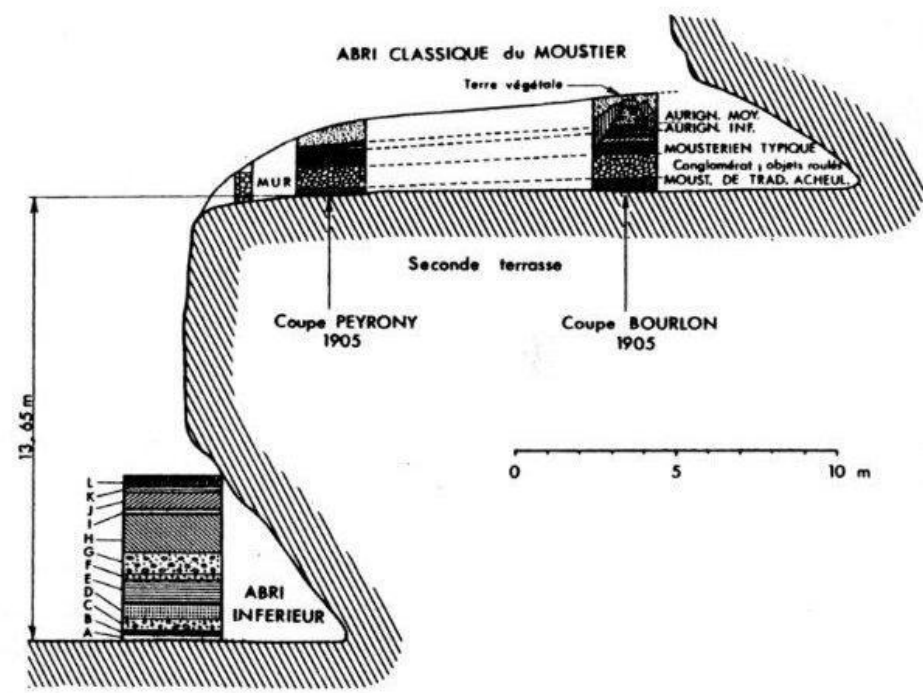
**Middle Palaeolithic finds and sites are particularly common in a few specific areas, for instance along the banks of the Perigord rivers of the mountain regions of Central Massif in France.**



## The upper shelter



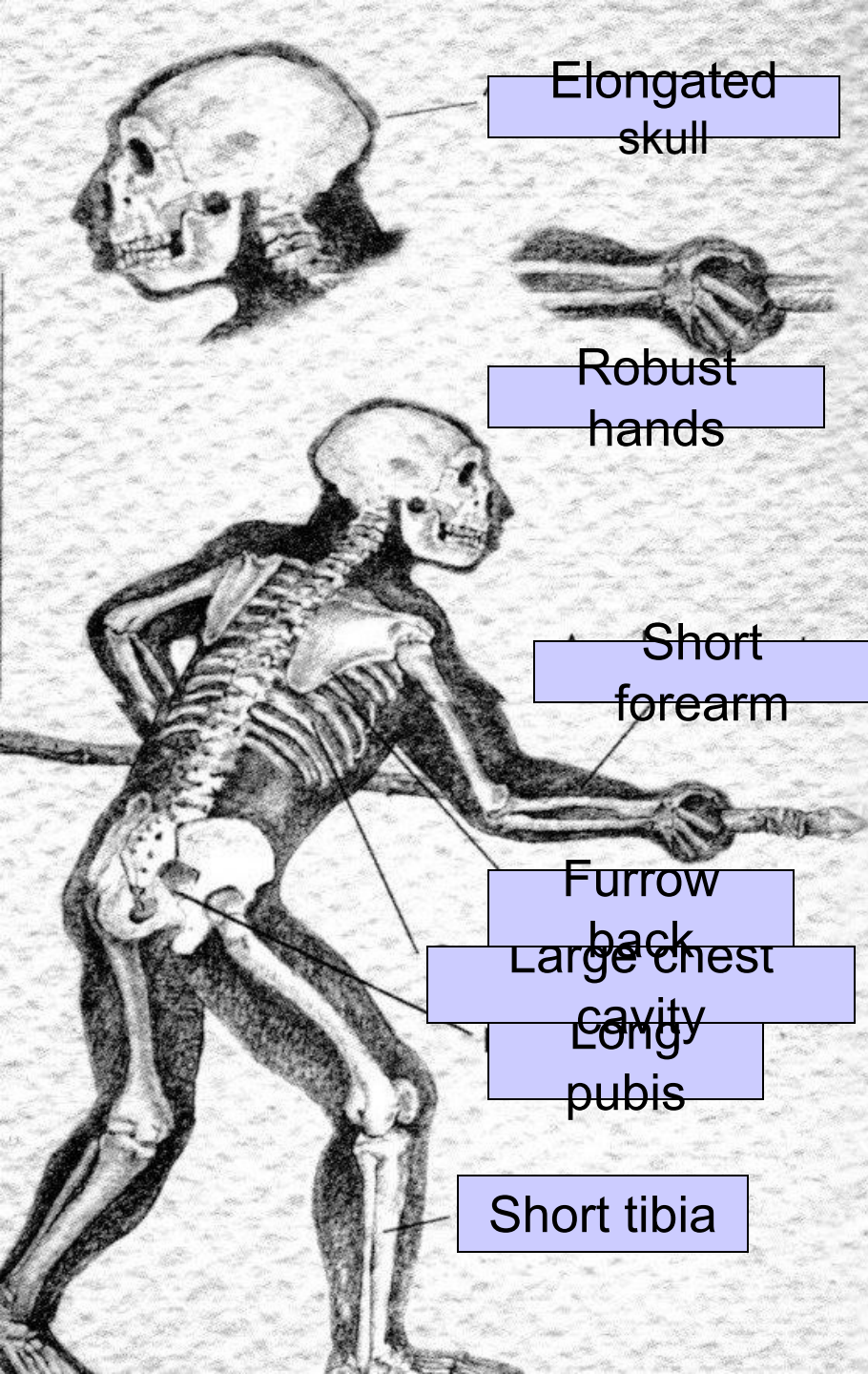
## The sequence of the lower shelter



## Rock-shelters of Le Moustier

Among the Perigord sites particularly important are the two **Le Moustier** rock shelters. They gave the name to the Mousterian Culture that characterises the Middle Palaeolithic of Europe and other regions of Asia. Here a burial was found during the researches carried out in the 1800s.



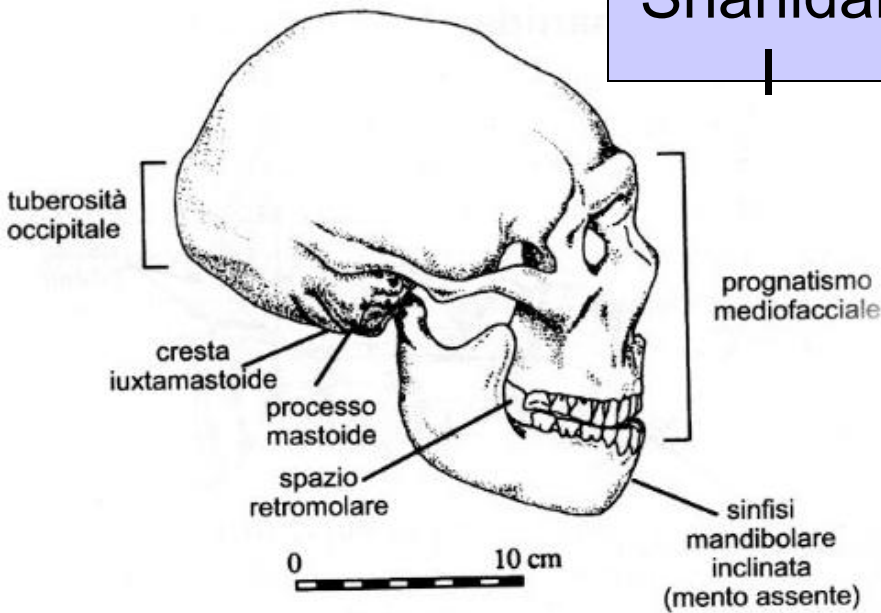


**The characteristics of the skull and other bones in general (see drawing on the left) show the sturdiness of the Neanderthal individuals.**

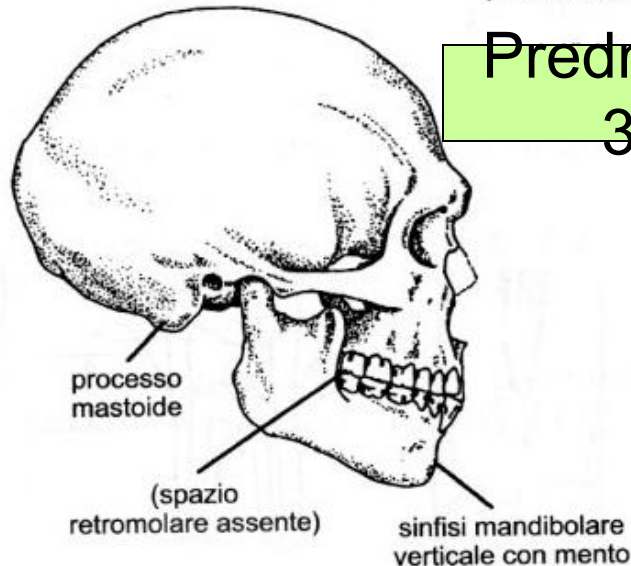


Shanidar

Saint Cesaire



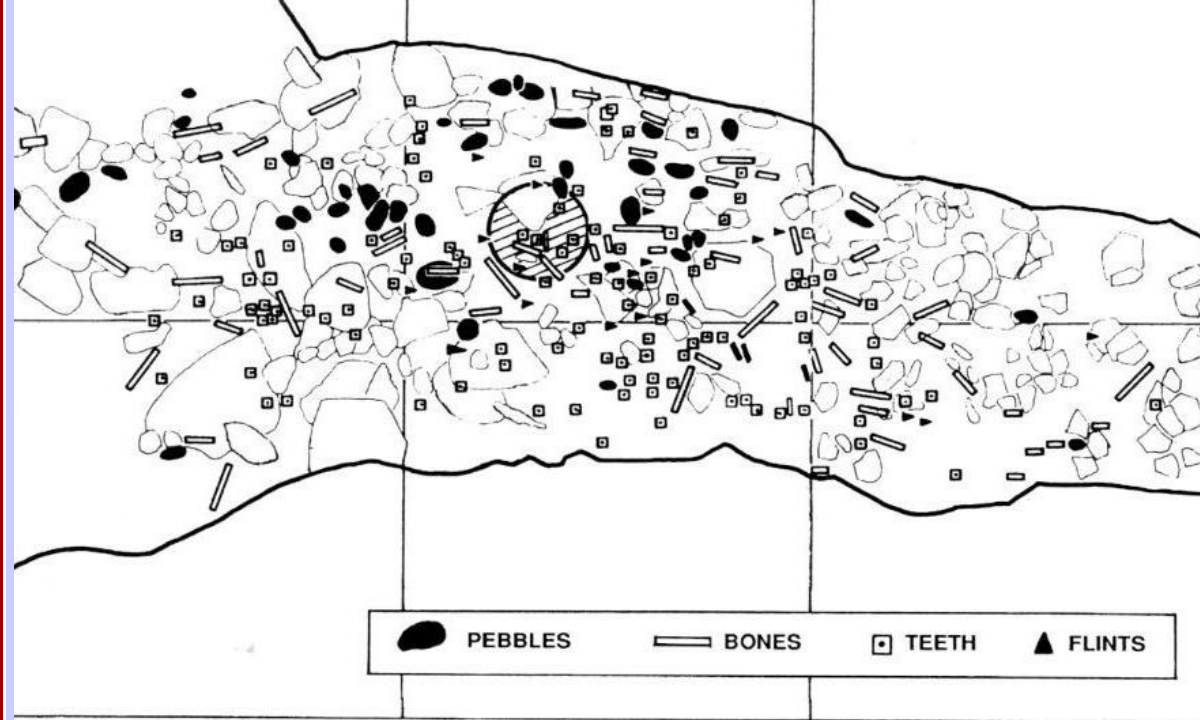
Predmost  
3



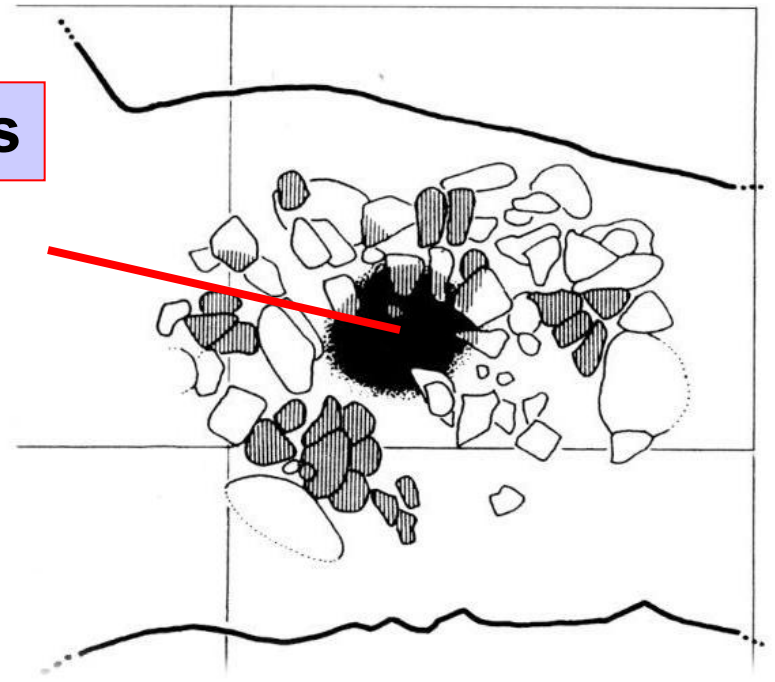
**Examples of classical Neanderthal skulls from the Near East (Shanidar) and Central Europe (Predmost) (left), and the last Neanderthal so far discovered at Saint Cesaire (right)**



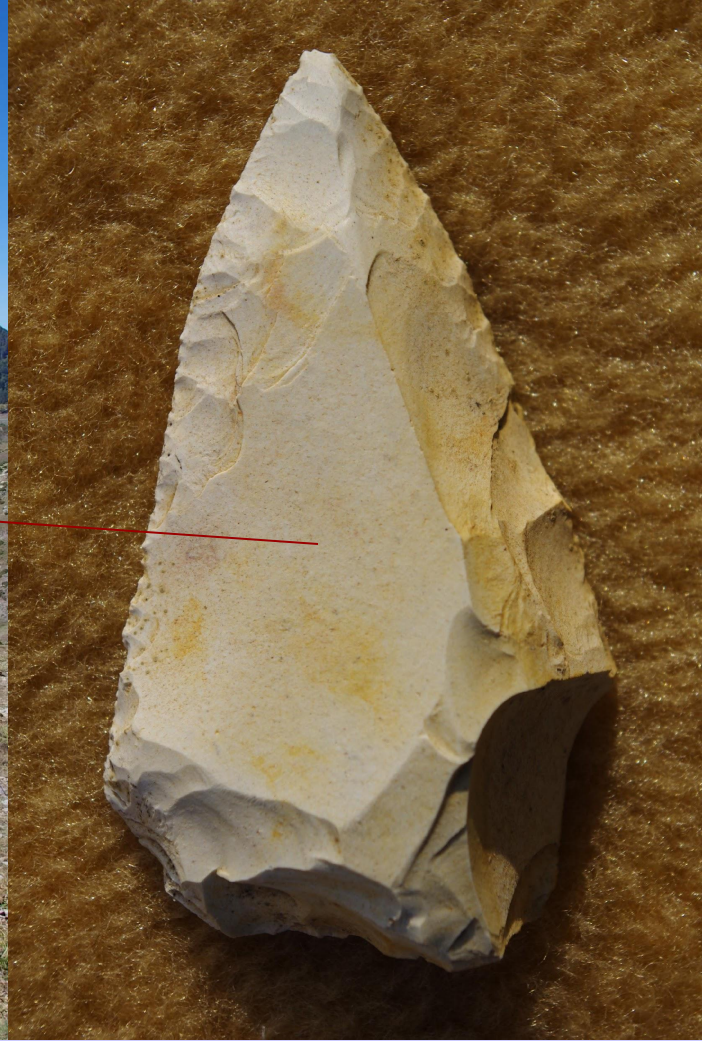
Among structural remains uncovered at Neanderthal sites are living floors. On their surface chipped stone tools, other artefacts, and sometimes fireplaces delimited by pebbles have been recovered



hearth







The adaptation capabilities are remarked by the presence of their sites also at high altitudes, for instance in the Alps, Apennines, Rhodopes, Pindus and the uplands of Iran, which they seasonally exploited for different purposes. This is the case for the watershed between Western Macedonia and Epirus in Greece.

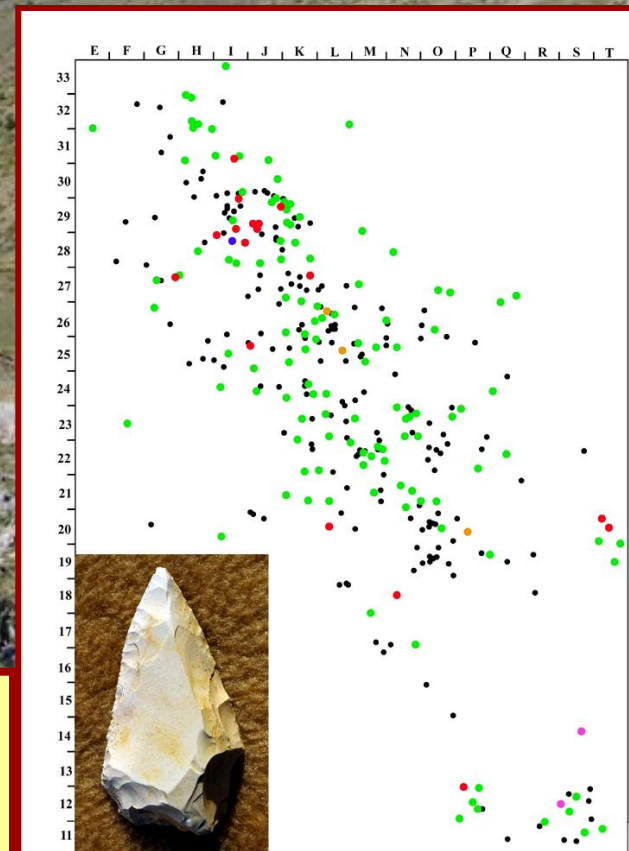
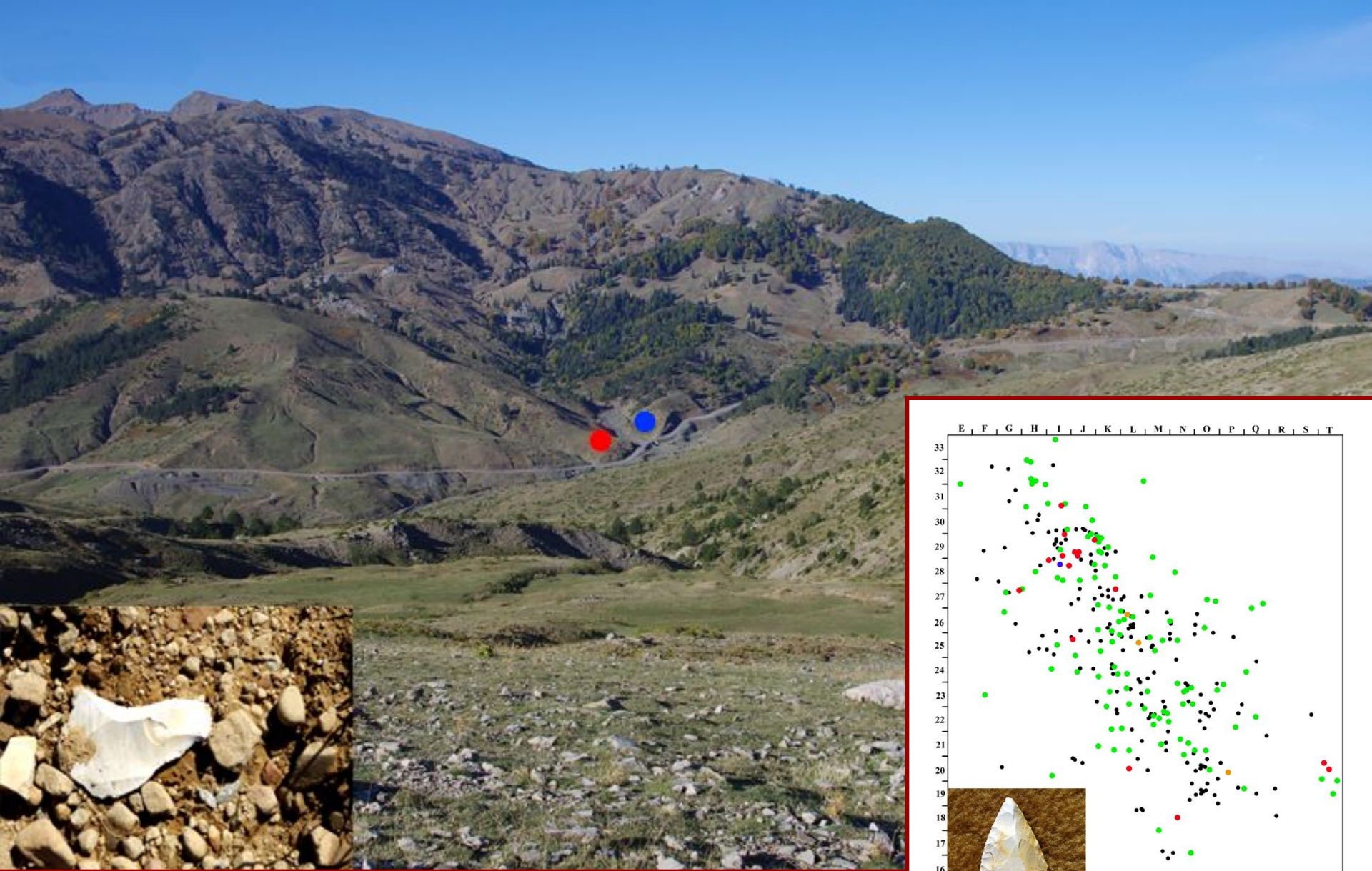




Chert decortication area

In the Pindus mountains of Greece they exploited the light grey limestone chert outcrops located above 1800m of altitude

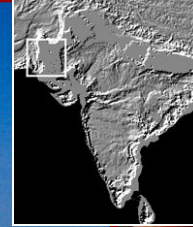




And settled in several sites located on river terraces (colour dots), close to good quality chert sources, and exploited the high altitudes for hunting



# Great Indian Desert



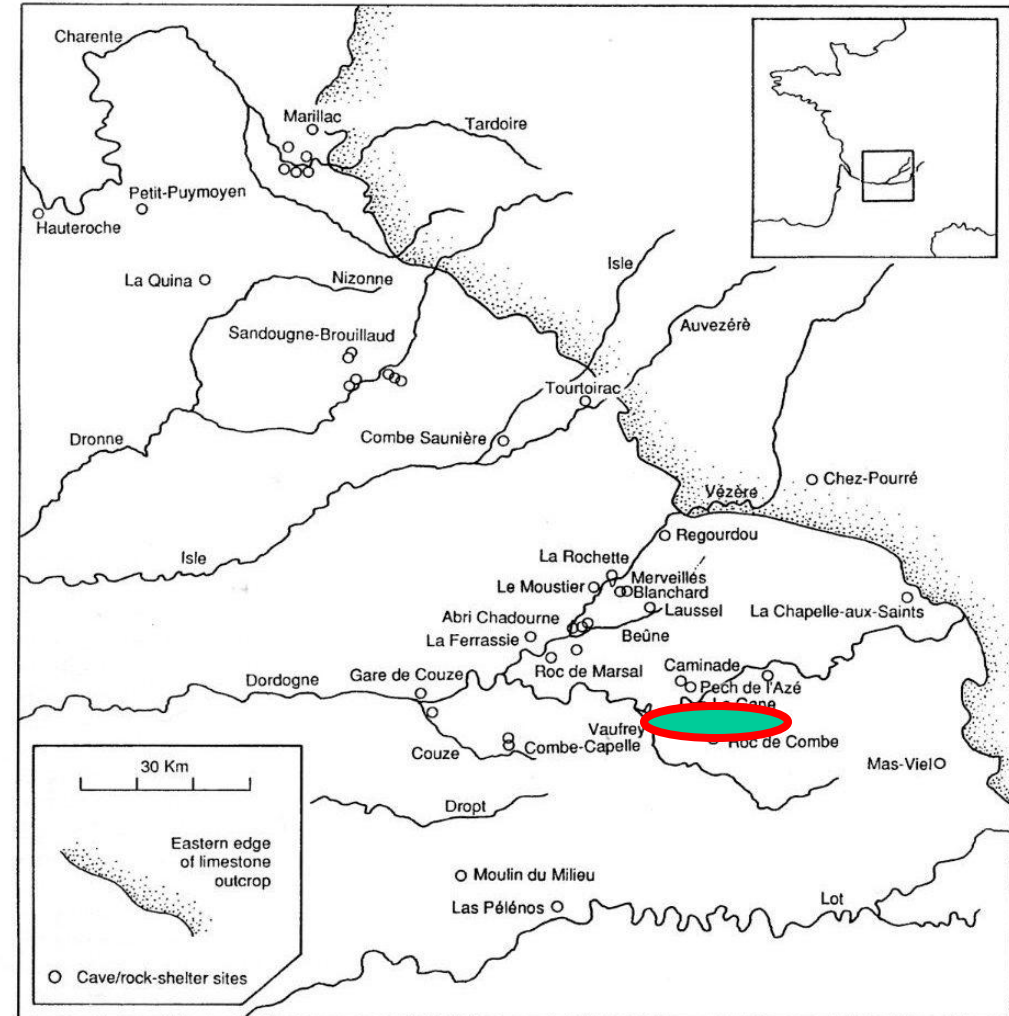
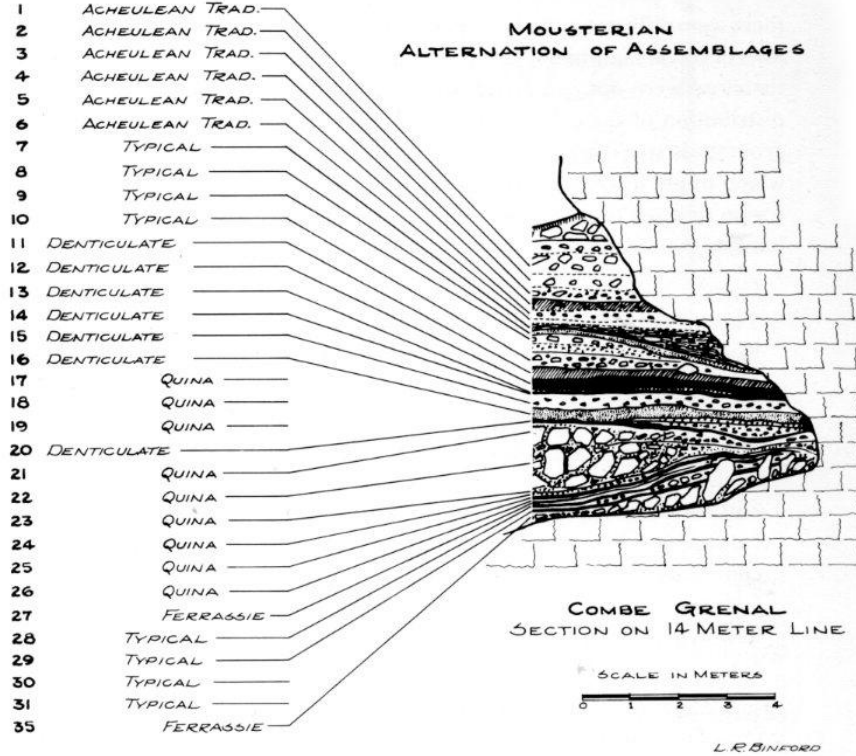
# Levallois Core



Chert outcrops at Ongar

Mousterian Levalloisian tools come also from the northwestern region of the Indian Subcontinent. They are supposed to represent the southeasternmost spread of Neanderthal groups

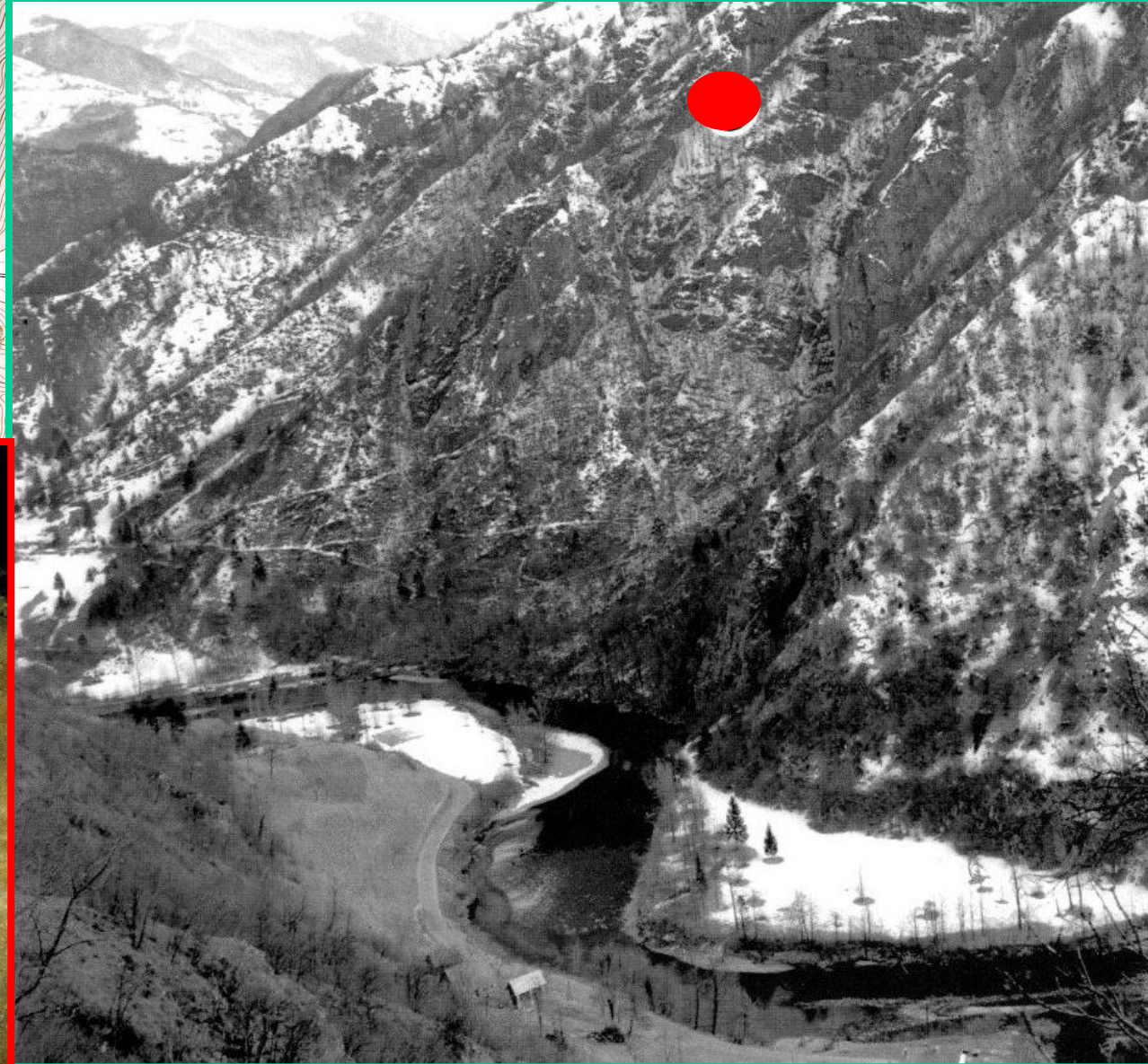
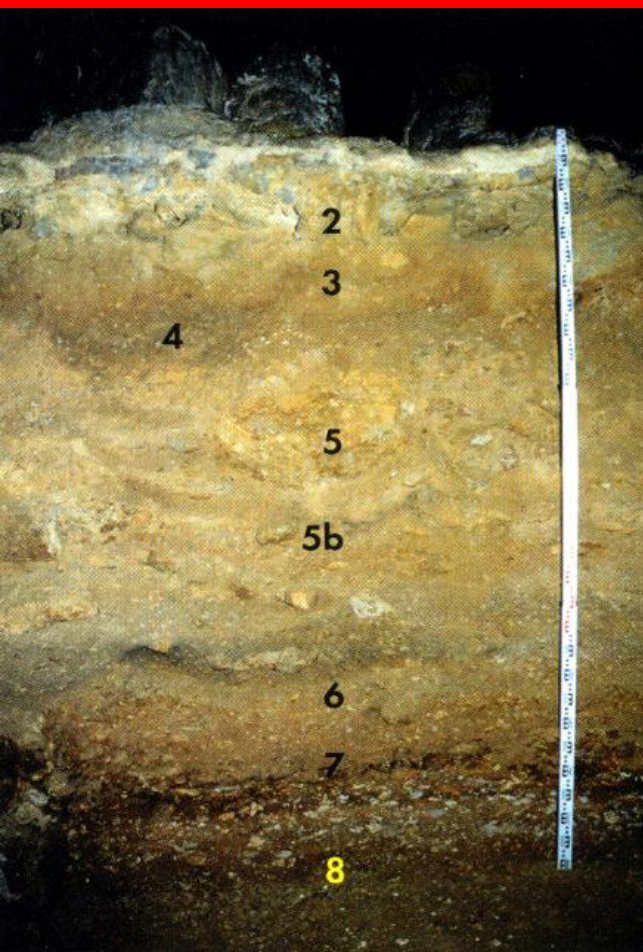
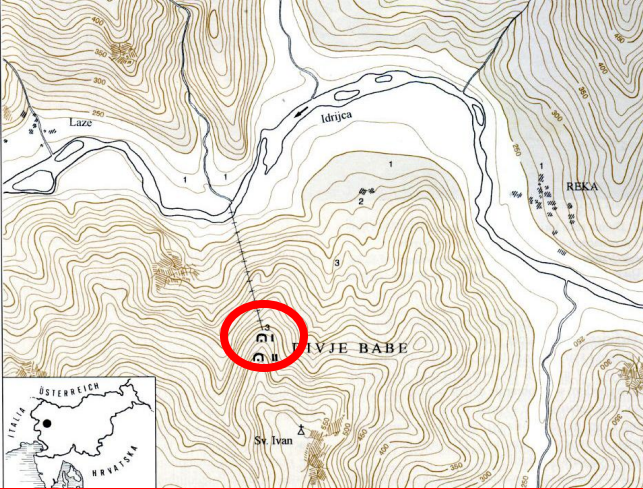




**The rock shelter of Combe Grenal (Perigord) was settled many times by Neanderthal communities during the Middle Palaeolithic period. The Mousterian lithic assemblages from the site, greatly vary according to the different occupations through the time, and the human activities**

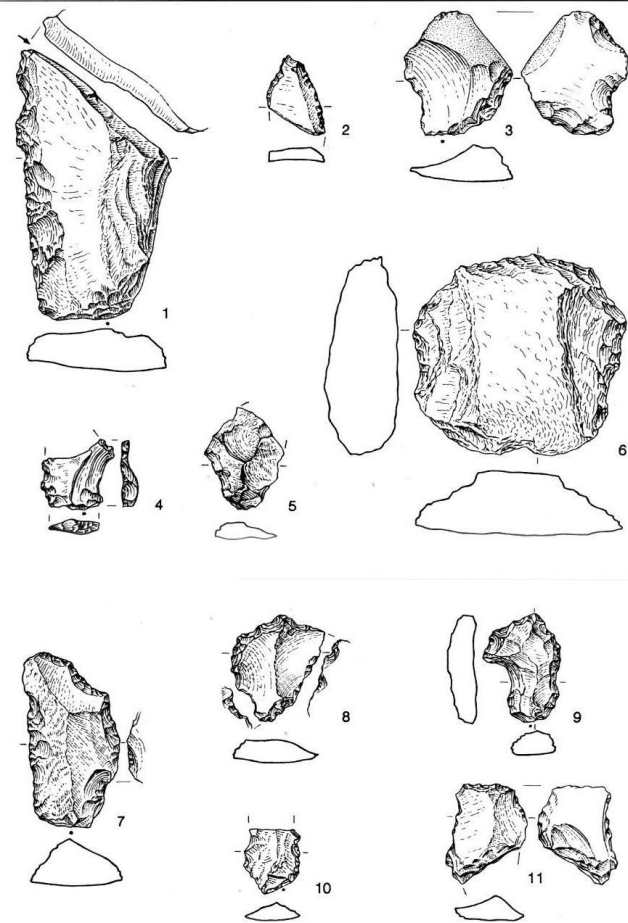
**Combe Grenal is located in central France, one of the richest Palaeolithic regions of western Europe that are mainly distributed along river courses that flow from east to west toward the Atlantic Ocean**





**The Cave of Divje Babe in the Alpine mountains of Slovenia that was settled by Neanderthals ca. 50/40,000 from now**

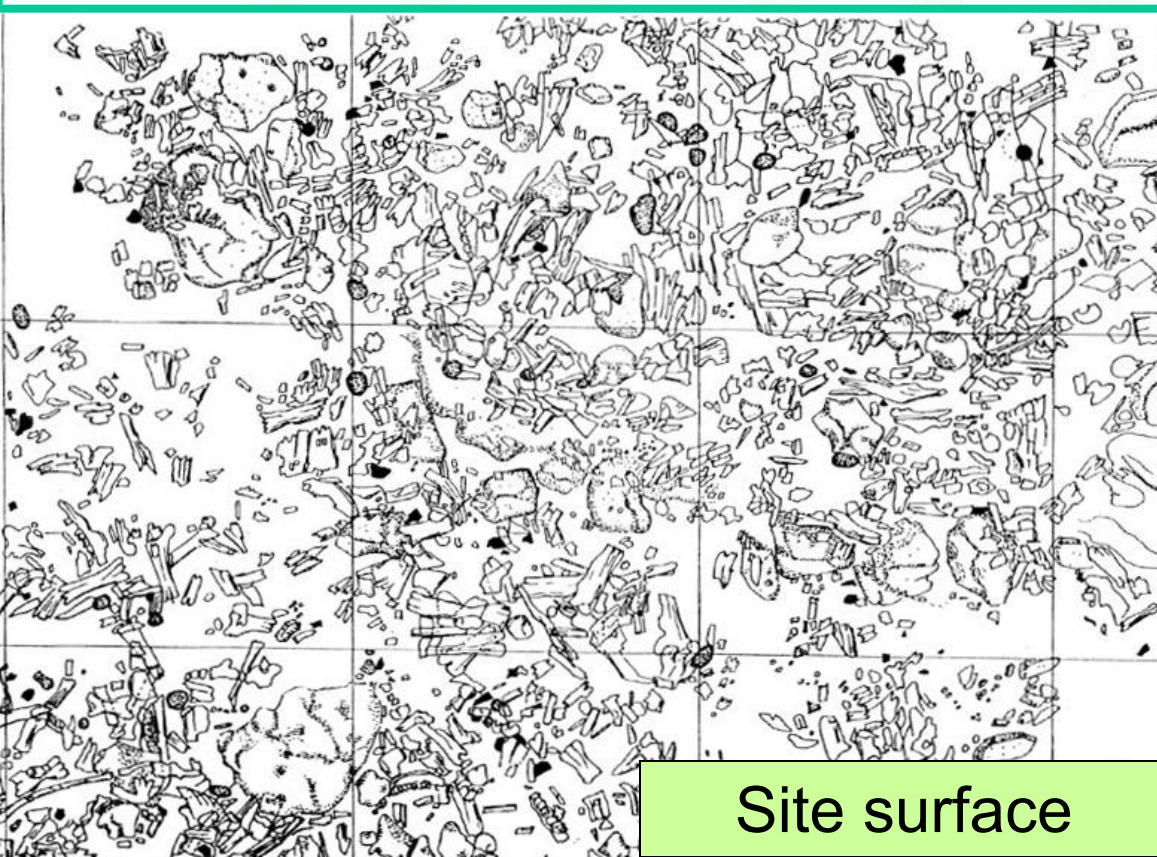
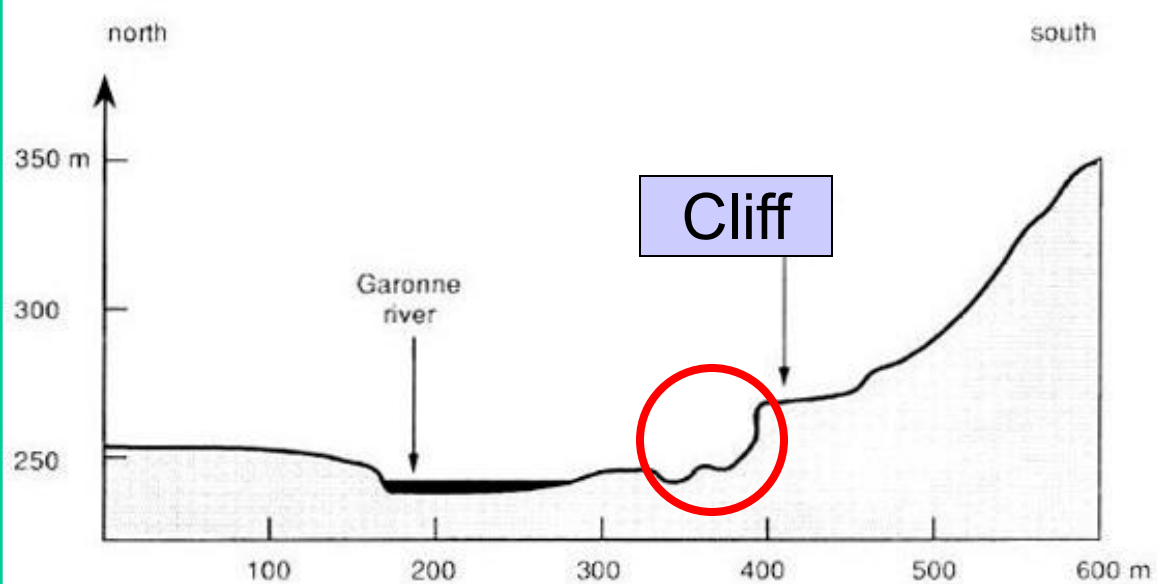




**Divje Babe opens at ca. 450 m above the course of the Idrijca in south Slovenia. Among the finds from this cave are chipped stone tools made from tufa, quartzite and chert (left). A particular find is a pierced cave bear diaphysis (right) that has been interpreted as a musical instrument (flute)**

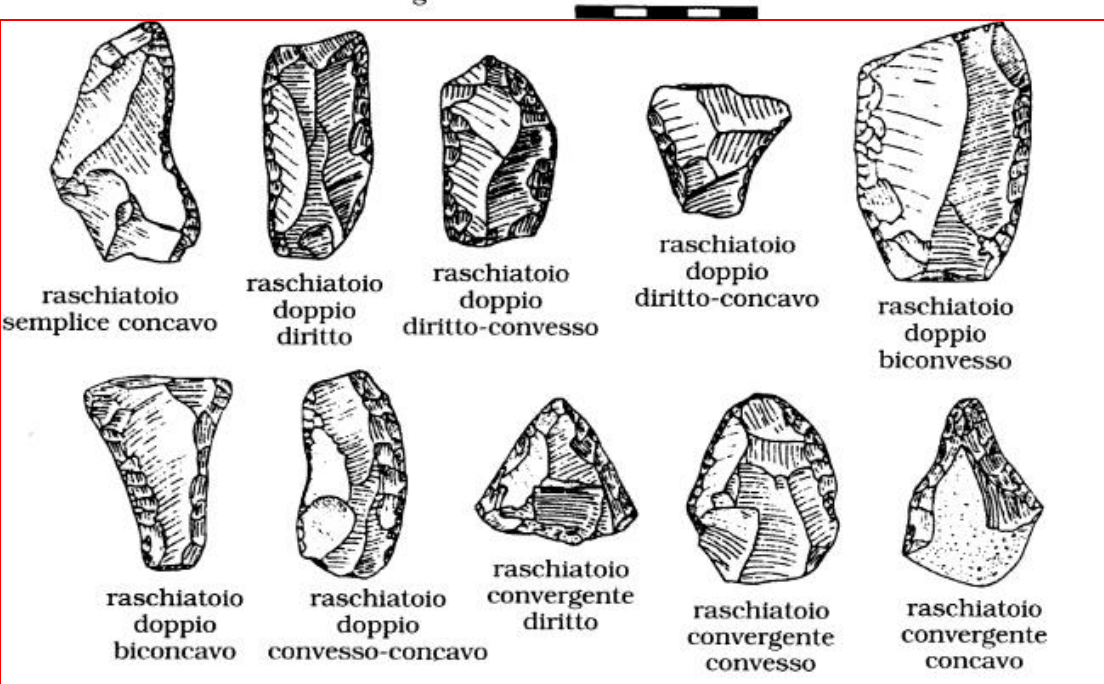
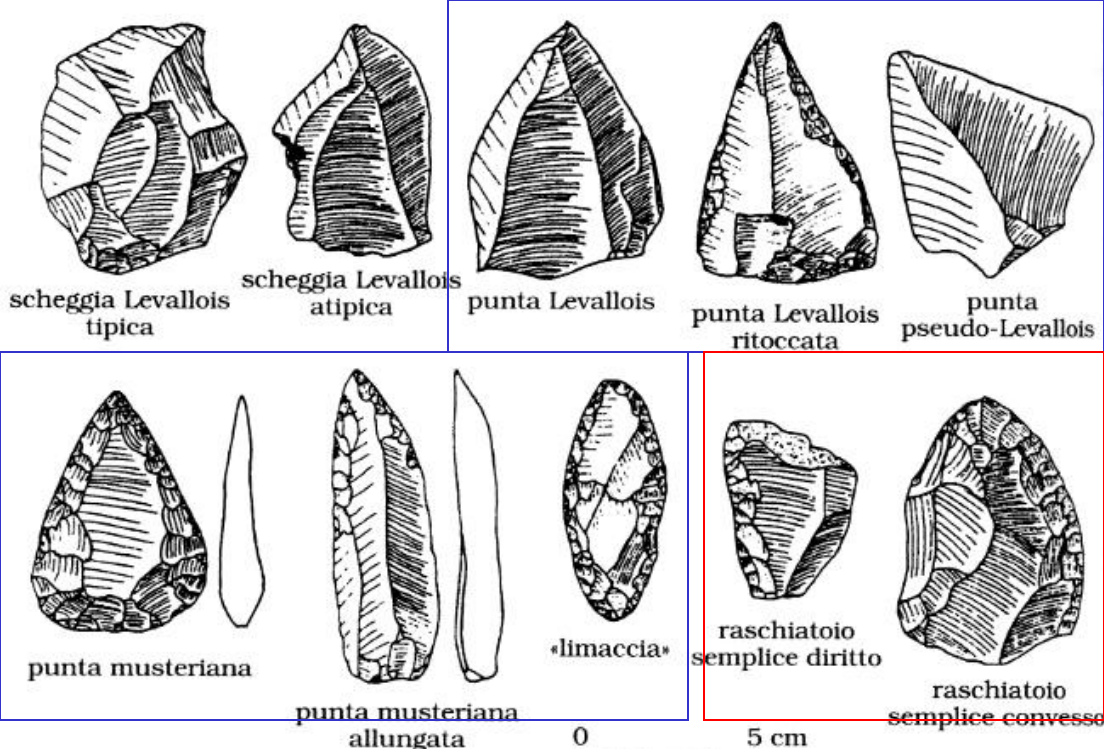
Plast Layer	$^{14}\text{C}$ (RIDDL - Canada)	$^{14}\text{C}$ (Z - Croatia)	$^{14}\text{C}$ (Wk - New Zeleand )	$^{230}\text{Th}$ (Ku - USA)
2	$35.300 \pm 700^*$	-	-	$26.200 \pm 5.300^*$
3	-	-	-	-
4**	-	$28.000 \pm 1.300$	-	-
5 ***	-	-	$30.840 \pm 300$	-
6	$43.400 + 1.000/-1.400$	-	-	-
7	-	-	-	-
8 ****	$45.800 + 1.800/-2.400$	-	-	-
8 *****	$45.100 + 1.500/-1.800$	$>38.000$	-	-
8*****	$40.600 \pm 1.00$ $49.200 + 2.300/-3.200$	-	-	-





The site of Mauran, in Upper Garonne (France), where indiscriminate hunting of bison took place in Middle Palaeolithic times. The flocks were directed toward the cliff, as shown in the scheme (top left). The excavations at the site below the cliff showed evidence of butchering of the animals. Hunting one single species is characteristic of the Neanderthal groups





The chipped stone assemblages of the Middle Palaeolithic Mousterian Culture are systematically characterised by different varieties of two main tool types:

- 1) **Points (blue)** and
- 2) **Side scrapers (red)**,

and the presence, in variable percentages, of the Levallois technique employed in the manufacture of flakes, points and blades



## Mousterian Levallois



Side Scraper



Point



Core

Side scrapers



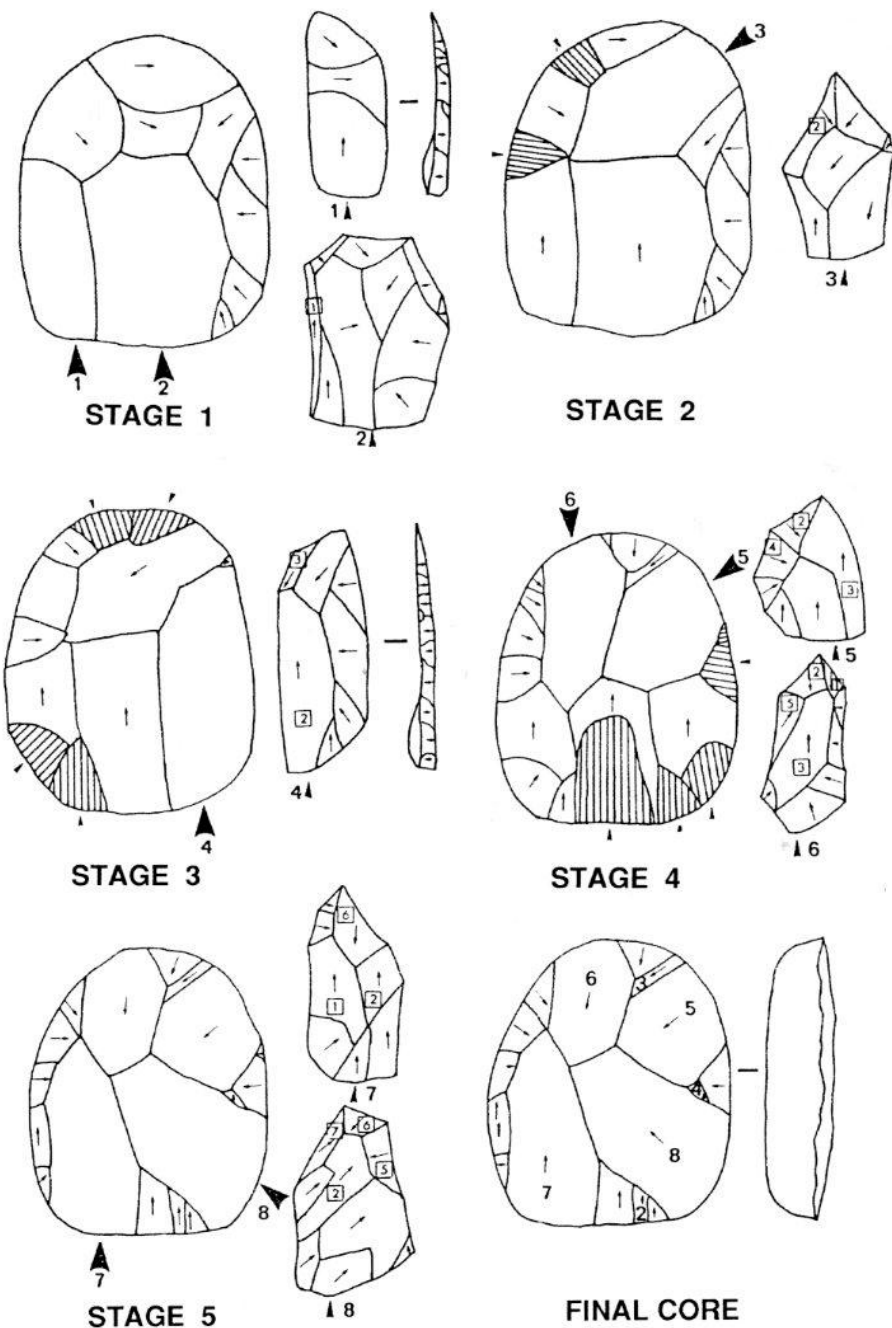
Mousterian lithic tools from a site of southern France. The three above are obtained with the Levalloisian technique, while the three below are not of Levalloisian technique





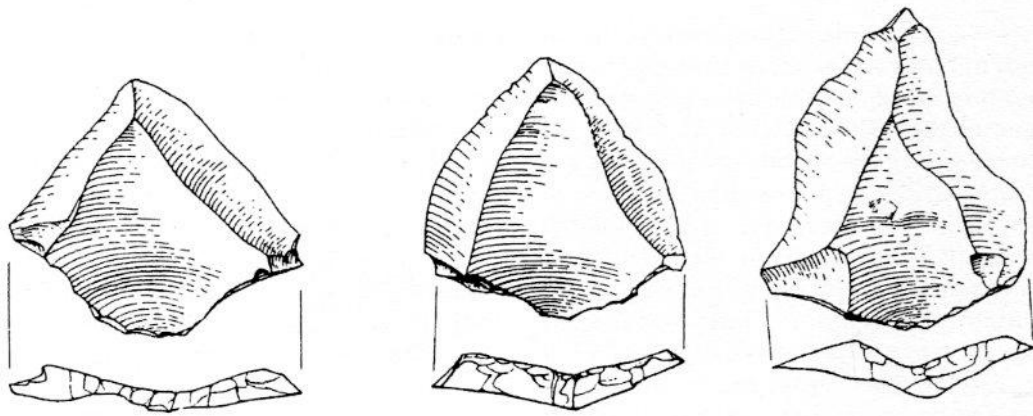
**Mousterian chert side scrapers from Tagliante rock-shelter in north Italy**



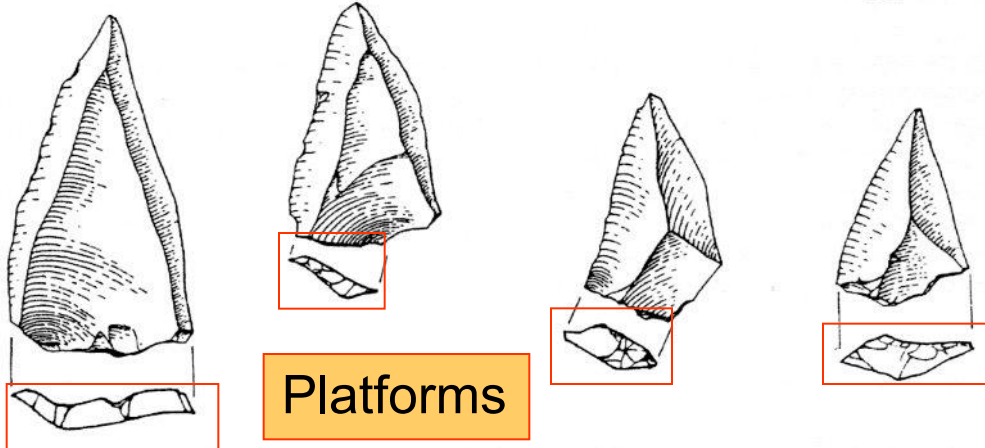
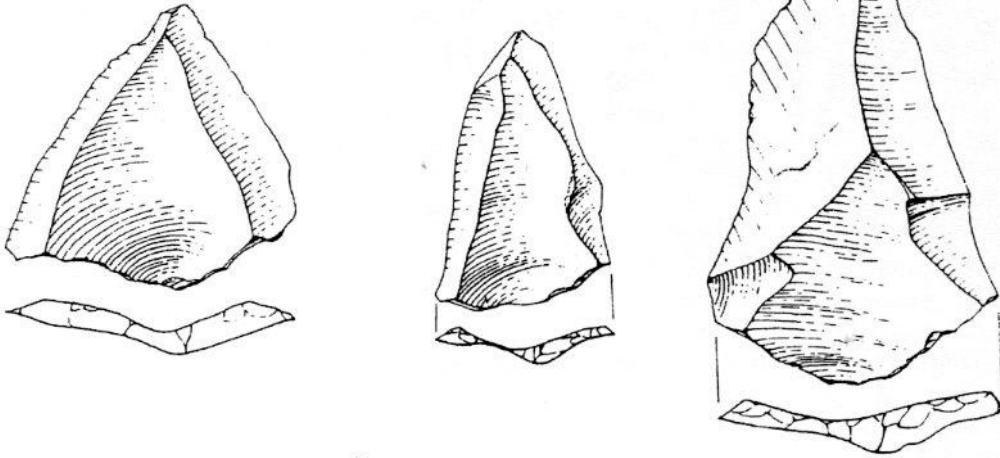


**Levallois chipping technique (left) and cores (right)**





## Levallois Points



## Platforms

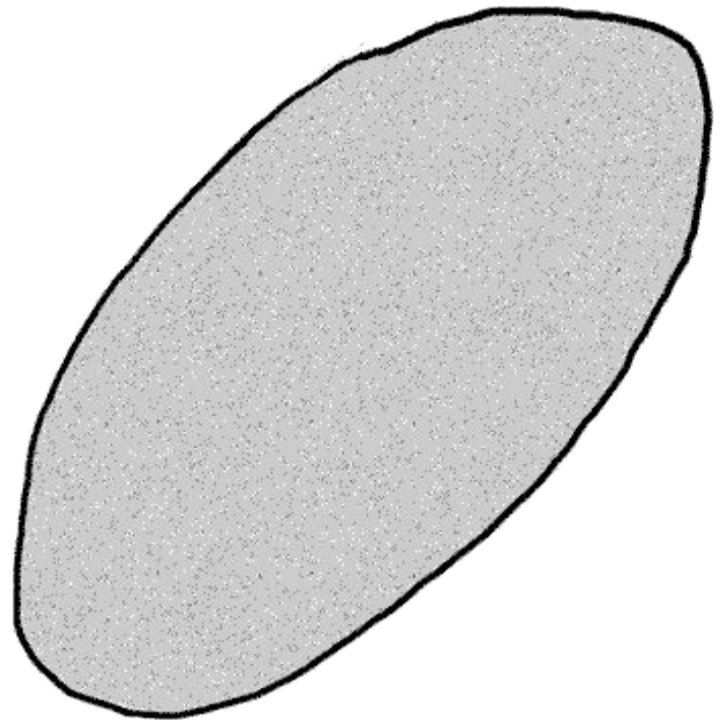


The Levallois points are characterised by a triangular form and two convergent ridges which give them a triangular shape.

They can be unretouched (left) or, more rarely, retouched. Their platform are always faceted



# Levallois production stages of Levallois points (left) and flakes (right)





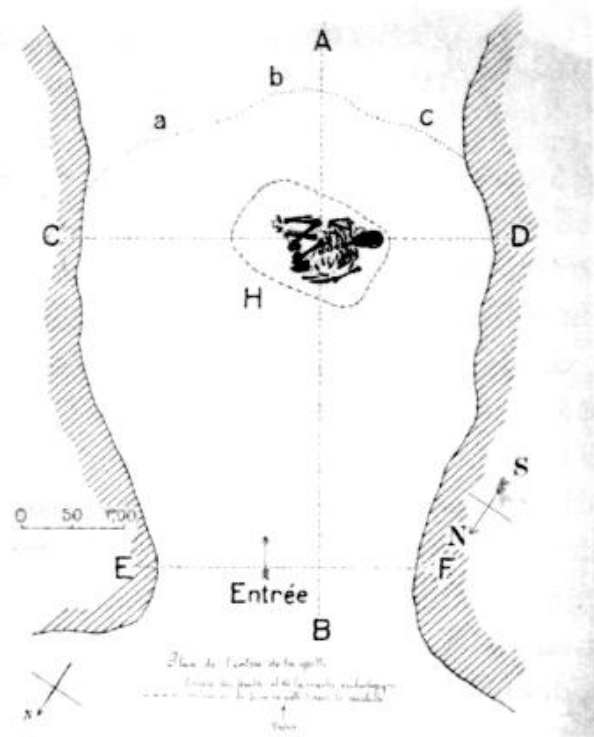
In the recent past the study of the Mousterian lithic assemblages has been put forward mainly by three scholars: **Francois Bordes**, **Lewis R. Binford** and **Paul Mellars**.

**F. Bordes** (France) analysed in particular the typology of the Middle Palaeolithic chipped stone industries. He developed a new method of classification that is still largely employed mainly by the French archaeologists.

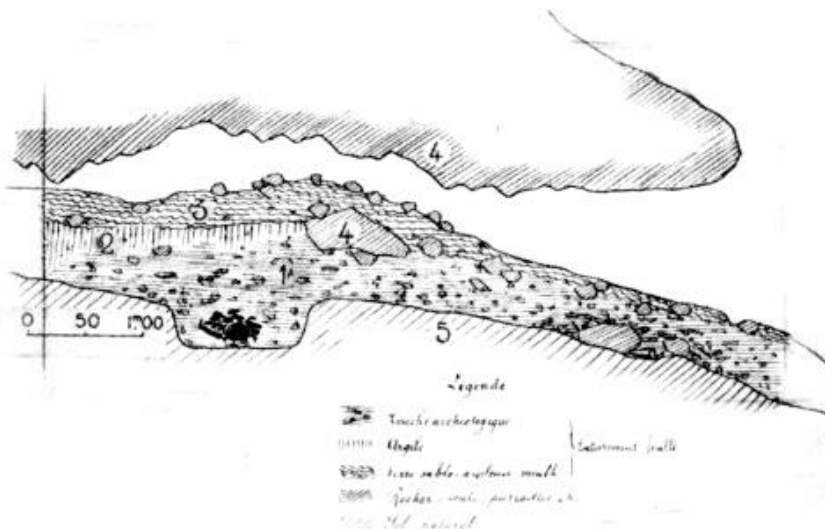
**L.R. Binford** (USA), devoted himself to the activities shown by the different groups of lithic assemblages that he interpreted as reflecting diverse, possible function developed within the archaeological sites.

**P. Mellars** (UK) studied the development of the chipped stone assemblages from the classical rock-shelter sequence of Combe Grenal in France, which is the most complete Middle Palaeolithic stratigraphy so far available in western Europe. It is important to remember that the study of the Mousterian assemblages is difficult also because of problems related with difficulties in their radiometric chronology.



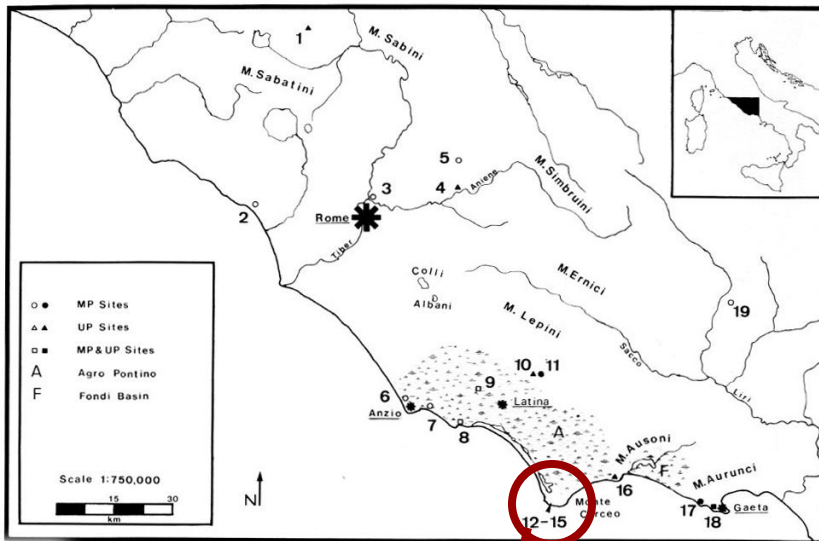


## Chapelle aux Saints

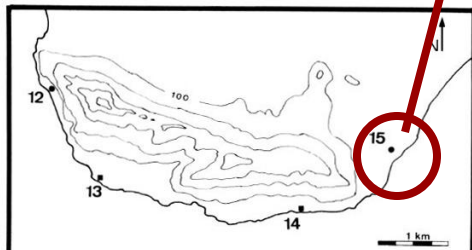


Neanderthals were the first human beings to bury their deads. Funerary practices are known from both European and Asian sites. The excavations carried out during the last century at the cave of Chapelle aux Saints, in France, led to the discovery of an individual buried in a rectangular grave excavated into the limestone bedrock, just below the Mousterian deposits (left). Other burials are known from Le Moustier, Roc de Marsal, La Ferrassie and other French sites. La Ferrassie showed evidence of at least seven burials.

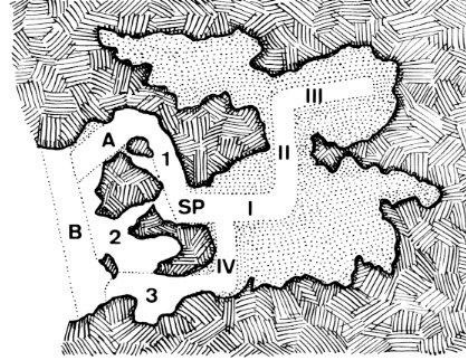




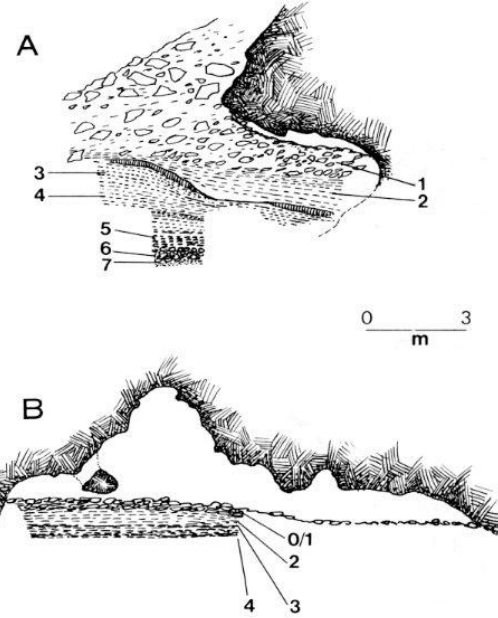
Site location along the coast of central-western Italy



Detail map of Monte Circeo, with important Paleolithic sites. 12=Grotta Breuil; 13=Grotta Barbara; 14=Grotta del Fossellone; 15=Grotta Guattari. Contour intervals=100 m. Hollow symbols denote open-air sites; solid symbols denote caves and rockshelters.



Plan of the cave  
with the  
excavation  
trenches opened  
by  
archaeologists



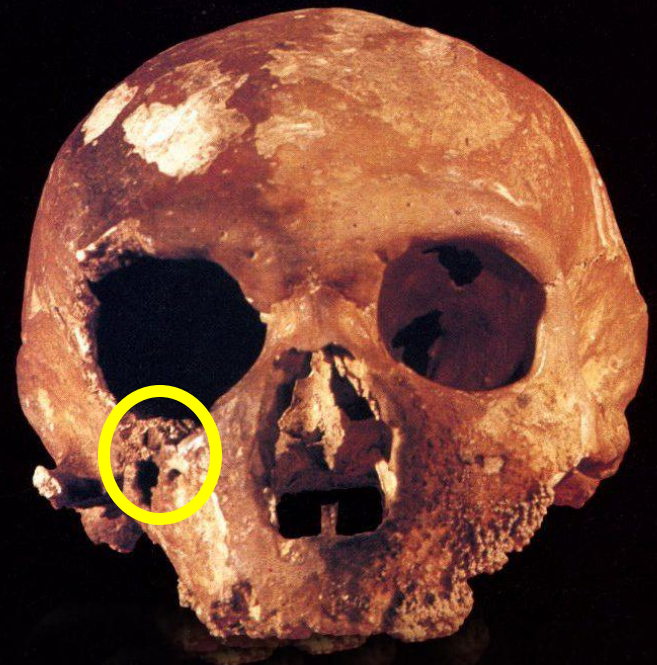
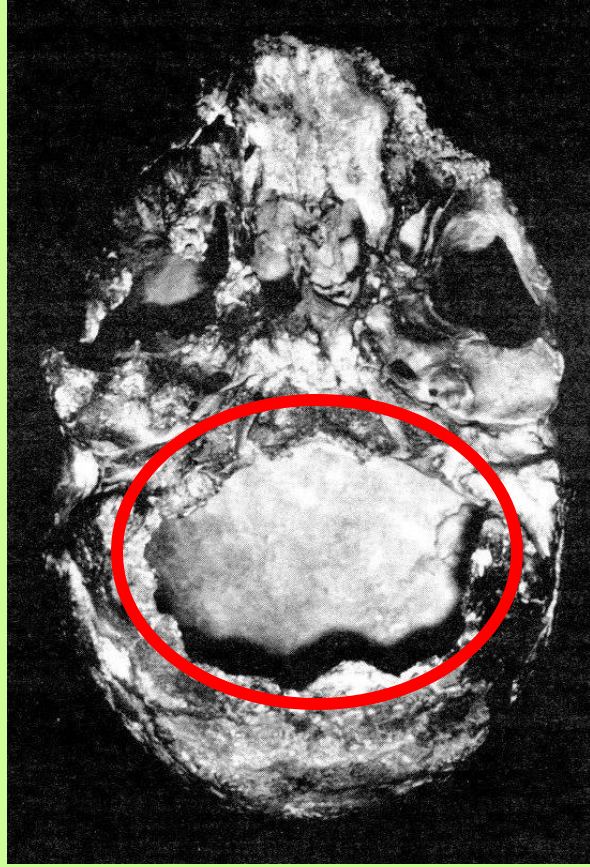
Profile of the sequence



A largely debated, although famous Neanderthal skull discovery comes from Cave Guattari on Mt. Circeo in Central Italy, which was recovered as shown (right)



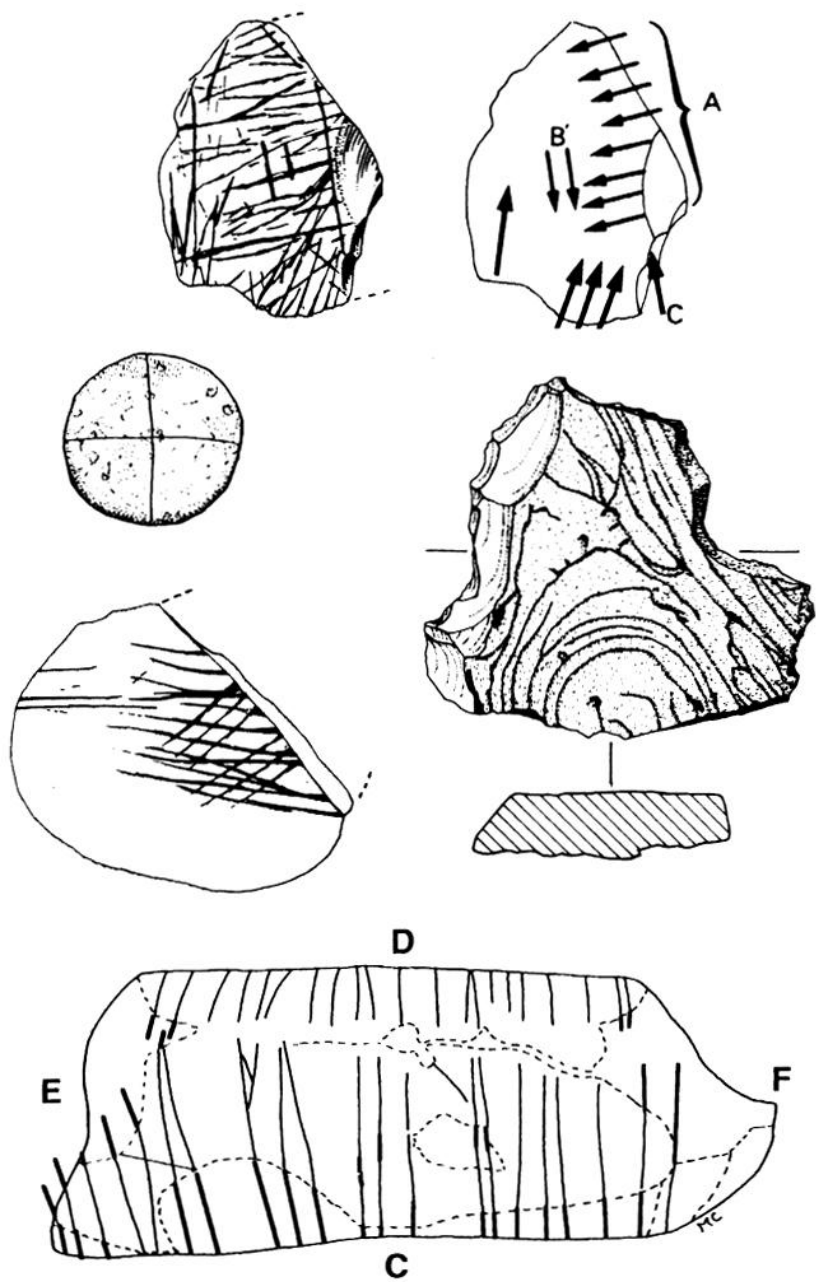
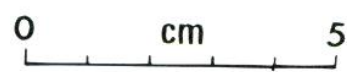
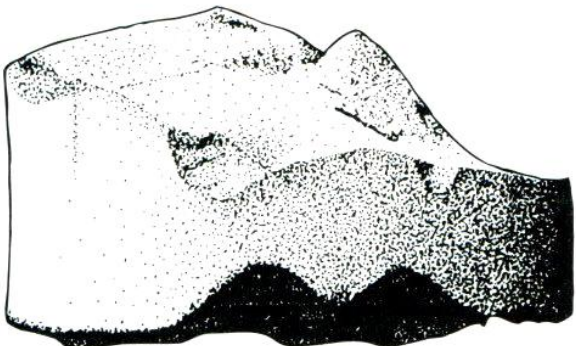
The classic Neanderthal human skull from Cave Guattari at Mt. Circeo (right), whose occipital forum had been widened artificially



Only some 25 years ago, the re-analysis of the skull led the specialists understand that the face scars and *forum occipitalis* widening had been caused by *Hyaena spelea* settled in the cave









# References

Binford, L.R. and Binford, S.R. 1966 - A Preliminary Analysis of Functional Variability in the Mousterian of Levallois Facies. *American Anthropologist* 68 (2): 238-295.

Bordes, F. 1968 - *The Old Stone Age*. World University Library, London

Trinkhaus, E. and Shipman, P. 1993 - *The Neanderthals. Changing the image of mankind*. Pimlico, London

Kuhn, L.S. 1995 - *Mousterian Lithic Technology. An Ecological Perspective*. Princeton University Press, Princeton

Mellars, P. 1996 - *The Neanderthal Legacy. An Archaeological Perspective from Western Europe*. Princeton University Press, Princeton